

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A submersible comprising:

a hull having at least one pressure pod for accommodating at least one person ~~in a recumbent-sitting position~~; and

at least one pair of fixed wings disposed on the hull, said wings having ailerons that are movable in opposite directions with respect to each other to provide the submersible with the ability to roll;

wherein the submersible does not include a ballast tank and has a fixed positive buoyancy and a fixed center of buoyancy of the submersible that is in close proximity to the center of gravity.

2. (Original) The submersible according to claim 1, further comprising at least one elevator disposed on the hull, said at least one elevator being movable to provide the submersible with the ability to elevate and decline.

3. (Original) The submersible according to claim 1, further comprising steering means connected to said hull for providing the submersible with the ability to steer right and left.

4. (Original) The submersible according to claim 1, wherein said at least one pressure pod is separate from and contained with the hull of the submersible.

5. (Currently Amended) The submersible according to claim 4, wherein the at least one pressure pod comprises a composite structure made from a resin and fibers ~~the submersible does not contain a ballast tank.~~

6. (Original) The submersible according to claim 1, further comprising a central longitudinal axis, said at least one pair of wings providing the submersible with a rolling range of up to 60 degrees in either direction around said longitudinal axis.

7. (Original) The submersible according to claim 1, further comprising a central longitudinal axis, said at least one pair of wings providing the submersible with a rolling range of up to 60 degrees in either direction around said longitudinal axis.

8. (Original) The submersible according to claim 1, further comprising a central longitudinal axis, said at least one pair of wings providing the submersible with a rolling range of up to 90 degrees in either direction around said longitudinal axis.

9. (Original) The submersible according to claim 1, further comprising a central longitudinal axis, said at least one pair of wings providing the submersible with the ability to roll 360 degrees in either direction around said longitudinal axis.

10. (Original) The submersible according to claim 1, wherein said at least one pressure pod accommodates at least two persons.

11. (Original) The submersible according to claim 1, wherein said at least one pressure pod accommodates at least three persons.

12. (Original) The submersible according to claim 1, further comprising at least two pressure pods for accommodating at least two persons.

13. (Original) The submersible according to claim 1, further comprising three pressure pods for accommodating at least three persons.

14. (Currently Amended) A submersible comprising:

a hull having at least one pressure pod for accommodating at least one person ~~in a recumbent-sitting position~~; and

at least one pair of fixed wings having ailerons disposed on the hull;

wherein said at least one pressure pod is maintained at a constant pressure, said constant pressure providing the submersible with a positive buoyancy;  
wherein the submersible does not include a ballast tank and has a fixed positive buoyancy and a fixed center of buoyancy of the submersible is in close proximity to the center of gravity.

15. (Previously Presented) The submersible according to claim 14, further comprising:

a thruster for providing forward thrust to the submersible; and

at least one elevator disposed on the hull;

wherein said ailerons and said at least one elevator being independently adjustable with respect to each other.

16. (Original) The submersible according to claim 15, wherein said at least one pair of wings are structured to generate a balancing downward force in response to forward movement of the submersible to counteract the positive buoyancy of the submersible.

17. (Original) The submersible according to claim 16, wherein the downward force generated on the by the wings increases as the speed of the submersible increases.

18. (Original) The submersible according to claim 14, wherein said at least one pressure pod is separate from and contained within the hull of the submersible.

19. (Original) The submersible according to claim 14, further comprising a dome access hatch for said at least one pressure pod.

20. (Original) The submersible according to claim 15, further comprising a life support system connected to the at least one pressure pod for providing life support to an interior of the pressure pod.

21. (Original) The submersible according to claim 14, further comprising at least one emergency airbag for providing increased flotation when deployed.

22. (Original) The submersible according to claim 14, wherein said at least one pressure pod accommodates at least two persons.

23. (Original) The submersible according to claim 14, wherein said at least one pressure pod accommodates at least three persons.

24. (Original) The submersible according to claim 14, further comprising at least two pressure pods for accommodating at least two persons.

25. (Original) The submersible according to claim 14, further comprising three pressure pods for accommodating at least three persons.

26. (Currently Amended) A submersible comprising:

a hull having at least one pressure pod for accommodating at least one person ~~in a recumbent sitting position; and~~

at least one pair of fixed wings having ailerons disposed on the hull; ~~and~~  
~~at least one buoyancy tank for providing a variable buoyancy;~~  
wherein ~~said~~ the at least one pressure pod is maintained at a substantially constant pressure ~~said at least one buoyancy tank combined with said constant pressure of said~~  
~~pressure pod provides the submersible with a variable buoyancy range from neutral to~~  
~~positive~~ and  
the submersible does not include a ballast tank and has a fixed positive buoyancy and a fixed center of buoyancy of the submersible is in close proximity to the center of gravity.

27. (Original) The submersible according to claim 26, further comprising:

a thruster for providing forward thrust to the submersible; and  
at least one elevator disposed on the hull, said at least one pair of wings and said  
at least one elevator being independently adjustable with respect to each other.

28. (Original) The submersible according to claim 27, wherein said at least one pair of wings are structured to generate a balancing downward force in response to forward movement of the submersible to counteract the neutral to positive buoyancy of the submersible.

29. (Original) The submersible according to claim 28, wherein the downward force generated on the by the wings increases as the speed of the submersible increases.

30. (Original) The submersible according to claim 26, wherein said at least one pressure pod is separate from and contained within the hull of the submersible.

31. (Original) The submersible according to claim 27, further comprising a dome access hatch for said at least one pressure pod.

32. (Original) The submersible according to claim 27, further comprising a life support system connected to the at least one pressure pod for providing life support to an interior of the at least one pressure chamber pod.

33. (Original) The submersible according to claim 26, further comprising at least one emergency airbag for providing increased flotation when deployed.

34. (Original) The submersible according to claim 26, wherein said at least one pressure pod accommodates at least two persons.

35. (Original) The submersible according to claim 26, wherein said at least one pressure pod accommodates at least three persons.

36. (Original) The submersible according to claim 26, further comprising at least two pressure pods for accommodating at least two persons.

37. (Original) The submersible according to claim 26, further comprising three pressure pods for accommodating at least three persons.

38. (Currently Amended) A submersible comprising:

a hull having at least one pressure pod for accommodating at least one person ~~in a recumbent sitting position;~~

at least one pair of fixed wings disposed on the hull; and

wherein said at least one pressure pod is capable of maintaining a substantially constant pressure and the submersible does not include a ballast tank and has a fixed positive buoyancy and a fixed center of buoyancy of the submersible is in close proximity to the center of gravity.

39. (Previously presented) The submersible according to claim 38, further comprising:

a thruster for providing forward thrust to the submersible; and

at least one elevator disposed on the hull,

wherein said ailerons and said at least one elevator being independently adjustable with respect to each other.

40. (Original) The submersible according to claim 38, wherein said constant pressure provides the submersible with a substantially fixed buoyancy.



41. (Original) The submersible according to claim 40, wherein said at least one pair of wings are structured to generate a balancing downward force in response to forward movement of the submersible to counteract the fixed buoyancy of the submersible.

42. (Original) The submersible according to claim 41, wherein the downward force generated on the by the wings increases as the speed of the submersible increases.

43. (Original) The submersible according to claim 38, wherein said at least one pressure pod is separate from and contained within the hull of the submersible.

44. (Original) The submersible according to claim 39, further comprising an acrylic dome access hatch for said at least one pressure pod.

45. (Original) The submersible according to claim 39, further comprising a life support system connected to the at least one pressure pod for providing life support to an interior of the at least one pressure pod.

46. (Original) The submersible according to claim 44, wherein said access hatch provides access to said at least one pressure pod while the submersible is in the water and further secures said at least one pressure pod at the constant pressure.

47. (Original) The submersible according to claim 38, further comprising at least one emergency airbag for providing increased flotation when deployed.

48. (Original) The submersible according to claim 38, wherein said at least one pressure pod accommodates at least two persons.

49. (Original) The submersible according to claim 38, wherein said at least one pressure pod accommodates at least three persons.

50. (Original) The submersible according to claim 38, further comprising at least two pressure pods for accommodating at least two persons.

51. (Original) The submersible according to claim 38, further comprising three pressure pods for accommodating at least three persons.

52. (Currently Amended) A submersible comprising:

a hull having at least one pressure pod ~~made of sand-cast aluminum~~ for accommodating at least one person; and

at least one pair of fixed wings having ailerons disposed on the hull;

wherein said at least one pressure pod is maintained at a constant pressure and the submersible does not include a ballast tank and has a fixed positive buoyancy and a fixed center of buoyancy of the submersible is in close proximity to the center of gravity.

53. (Previously Presented) The submersible according to claim 52, further comprising:

a thruster for providing forward thrust to the submersible; and

at least one elevator disposed on the hull,

wherein said ailerons and said at least one elevator being independently adjustable with respect to each other.

54. (Original) The submersible according to claim 52, wherein said constant pressure provides the submersible with a fixed buoyancy.

55. (Original) The submersible according to claim 53, wherein said at least one pair of wings are structured to generate a balancing downward force in response to forward movement of the submersible to counteract the fixed buoyancy of the submersible.

56. (Currently Amended) The submersible according to claim 55, wherein the downward force generated ~~on the~~ by the wings increases as the speed of the submersible increases.

57. (Original) The submersible according to claim 52, wherein said at least one pressure pod is separate from and contained within the hull of the submersible.

58. (Original) The submersible according to claim 53, further comprising an acrylic dome access hatch for said at least one pressure pod, said access hatch providing access to said

at least one pressure pod while the submersible is in the water and further securing said at least one pressure pod at the constant pressure.

59. (Original) The submersible according to claim 58, wherein said at least one pressure pod is structured to provide a recumbent sitting position for the at least one person.

60. (Original) The submersible according to claim 53, further comprising life support system connected to the at least one pressure pod for providing life support to an interior of the pressure pod.

61. (Original) The submersible according to claim 52, further comprising at least one emergency airbag for providing increased flotation when deployed.

62. (Original) The submersible according to claim 52, wherein said at least one pressure pod accommodates at least two persons.

63. (Original) The submersible according to claim 52, wherein said at least one pressure pod accommodates at least three persons.

64. (Original) The submersible according to claim 52, further comprising at least two pressure pods for accommodating at least two persons.

65. (Original) The submersible according to claim 52, further comprising three pressure pods for accommodating at least three persons.

66. (Currently Amended) A submersible comprising:

a hull having at least one pressure pod for accommodating at least one person ~~in a~~  
~~recumbent seating position;~~

at least one pair of wings disposed on the hull; and

and acrylic dome access hatch to said at least one pressure pod, said acrylic dome access hatch providing access to said at least one pressure pod while the submersible is in the water;

wherein said at least one pressure pod is maintained at a constant pressure of 1.0 Atmosphere and the submersible does not include a ballast tank and has a fixed positive buoyancy and a fixed center of buoyancy of the submersible is in close proximity to the center of gravity.

67. (Previously presented) The submersible according to claim 66, further comprising:

a thruster for providing forward thrust to the submersible; and

at least one elevator disposed on the hull;

wherein said ailerons and said at least one elevator being independently adjustable with respect to each other.

68. (Original) The submersible according to claim 67, wherein said constant pressure provides the submersible with a substantially fixed buoyancy.

69. (Original) The submersible according to claim 68, wherein said at least one pair of wings are structured to generate a balancing downward force in response to forward movement of the submersible to counteract the fixed buoyancy of the submersible.

70. (Original) The submersible according to claim 68, wherein the downward force generated by the wings increases as the speed of the submersible increases.

71. (Original) The submersible according to claim 66, wherein said at least one pressure pod is separate from and contained within the hull of the submersible.

72. (Original) The submersible according to claim 67, further comprising a life support system connected to the at least one pressure pod for providing life support to an interior of the pressure chamber pod.

73. (Original) The submersible according to claim 67, further comprising at least one emergency airbag for providing increased flotation when deployed.

74. (Original) The submersible according to claim 66, wherein said at least one pressure pod accommodates at least two persons.

75. (Original) The submersible according to claim 66, wherein said at least one pressure pod accommodating at least three persons.

76. (Original) The submersible according to claim 66, further comprising at least two pressure pods for accommodating at least two persons.

77. (Original) The submersible according to claim 66, further comprising three pressure pods for accommodating at least three persons.

78. (Currently Amended) A submersible comprising:

A hull having at least one pressure pod for accommodating at least one person in a ~~recumbent-sitting position~~, wherein said at least one pressure pod is maintained at a constant pressure;

at least one pair of fixed wings having ailerons disposed on the hull; and

a life support system connected to said at least one pressure pod for providing life support systems to said at least one pressure pod;

wherein the submersible does not include a ballast tank and has a fixed positive buoyancy and a fixed center of buoyancy of the submersible is in close proximity to the center of gravity.

79. (Previously Presented) The submersible according to claim 78, further comprising:

a thruster for providing forward thrust to the submersible; and

at least one elevator disposed on the hull,

wherein said at least one pair of wings and said at least one elevator being independently adjustable with respect to each other.

80. (Original) The submersible according to claim 78, wherein said constant pressure provides the submersible with a substantially fixed buoyancy.

81. (Original) The submersible according to claim 80, wherein said at least one pair of wings are structured to generate a balancing downward force in response to forward movement of the submersible to counteract the fixed buoyancy of the submersible.

82. (Original) The submersible according to claim 81, wherein the downward force generated by the wings increases as the speed of the submersible increases.

83. (Original) The submersible according to claim 78, wherein said at least one pressure pod is separate from and contained within the hull of the submersible.

84. (Original) The submersible according to claim 78, further comprising a dome access hatch for said at least one pressure pod.



85. (Original) The submersible according claim 78, further comprising at least one emergency airbag for providing increased flotation when deployed.

86. (Original) The submersible according to claim 78, wherein said at least one pressure pod accommodates at least two persons.

87. (Original) The submersible according to claim 78, wherein said at least one pressure pod accommodates at least three persons.

88. (Original) The submersible according to claim 78, further comprising at least two pressure pods for accommodating at least two persons.

89. (Original) The submersible according to claim 78, further comprising at least three pressure pods for accommodating at least three persons.